

[0043] What is claimed is:

1. A method for provisioning a Packet Data Access Node (PDAN) with a packet filter for mapping one or more incoming data flows destined to a terminal to one or more service instances established between the PDAN and the terminal, the method comprising the steps of:
 - a) creating the packet filter in a Proxy-Call State Control Function (P-CSCF);
 - 5 b) transmitting the packet filter from the P-CSCF to the PDAN; and
 - c) installing the packet filter in the PDAN.
2. The method of claim 1, further comprising the step of:
 - d) using the packet filter, mapping by the PDAN the one or more data flows originated by a Corresponding Node (CN) in communication over a packet data session with the terminal onto the one or more service instances.
3. The method of claim 2, further comprising the step of:
 - e) establishing the packet data session between the CN and the terminal;
 - wherein the packet filter is associated to the packet data session.
4. The method of claim 3, wherein step e) is performed using Session Initiation Protocol (SIP), and the P-CSCF comprises a Proxy SIP (PSIP) server.
5. The method of claim 3, wherein step a) comprises the step of:
 - a.1) in the P-CSCF, using information related to the:
 - an IP address of the CN;
 - one or more CN port numbers used for carrying out the data session;
 - 5 - a type associates with each of the one or more data flows; and
 - the one or more service instances;
 - for creating the packet filter.

6. The method of claim 5, wherein the P-CSCF receives the information for creating the packet filter during the packet data session setup.
7. The method claimed in claim 1, wherein the PDAN is a Packet Data Service Node (PDSN) of a CDMA2000 wireless network, and the terminal is a Mobile Station (MS).
8. The method of claim 3, further comprising the steps of:
 - f) during the packet data session, creating a new packet filter in the P-CSCF;
 - g) transmitting the new packet filter from the P-CSCF to the PDAN; and
 - h) installing the new packet filter in the PDAN.
9. The method of claim 3, further comprising the steps of:
 - f) terminating the packet data session; and
 - g) uninstalling the packet filter from the PDAN.
10. A Proxy-Call State Control Function (P-CSCF) for provisioning a Packet Data Access Node (PDAN) with a packet filter for mapping one or more incoming data flows destined to a terminal to one or more service instances established between the PDAN and the terminal, the P-CSCF acting to create the packet filter and to transmit the packet filter to the PDAN.
11. The P-CSCF of claim 10, wherein the P-CSCF participates to an establishment of a packet data session associated with the data flows between a Corresponding Node (CN) and the terminal;
wherein the packet filter is associated to the packet data session, and the data flows are
5 part of the packet data session.
12. The P-CSCF of claim 11, wherein the establishment of the packet data session is performed using Session Initiation Protocol (SIP), and the P-CSCF comprises a Proxy SIP (PSIP) server.

13. The P-CSCF of claim 11, wherein for creating the packet filter the P-CSCF uses information related to the:

- an IP address of the CN;
- one or more CN port numbers used for carrying out the data session;
- a type associates with each of the one or more data flows; and
- the one or more service instances.

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14. The P-CSCF of claim 13, wherein the P-CSCF receives the information for creating the packet filter during a setup of the packet data session.

15. The P-CSCF of claim 11, wherein the PDAN is a Packet Data Service Node (PDSN) of a CDMA2000 wireless network and the terminal is a Mobile Station (MS).

16. The P-CSCF of claim 11, wherein during the packet data session, the P-CSCF creates a new packet filter and transmits the new packet filter to the PDAN.

17. The P-CSCF of claim 11, wherein the P-CSCF participates to a termination of the packet data session and instructs the PDAN to uninstall the packet filter.

18. A packet data network comprising:

Packet Data Access Node (PDAN); and

a Proxy-Call State Control Function (P-CSCF) creating a packet filter for mapping one or more incoming data flows destined to a terminal to one or more service instances established

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between the PDAN and the terminal, and transmitting the packet filter to the PDAN;

wherein upon receipt of the packet filter, the PDAN installs the packet filter.

19. The packet data network of claim 18, wherein the PDAN uses the packet filter to map the one or more data flows originated by a Corresponding Node (CN) in communication over a data session with the terminal, onto the one or more service instances.

20. The packet data network of claim 19, wherein a packet data session is established between the CN and the terminal, and the packet filter is associated to the packet data session.

21. The packet data network of claim 20, wherein the packet data session is established using Session Initiation Protocol (SIP), and the P-CSCF comprises a Proxy SIP (PSIP server).

22. The packet data network of claim 20, wherein for creating the packet filter the P-CSCF, uses information related to the:

- an IP address of the CN;
- one or more CN port numbers used for carrying out the data session;
- a type associates with each of the one or more data flows; and
- the one or more service instances.

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23. The packet data network of claim 22, wherein the P-CSCF receives the information for creating the packet filter during a setup of the packet data session.

24. The packet data network claimed in claim 18, wherein the PDAN is a Packet Data Service Node (PDSN), and the packet data network is a CDMA2000 wireless network and the terminal is a Mobile Station (MS).

25. The packet data network of claim 20, wherein during the packet data session, the P-CSCF creates a new packet filter and transmits the new packet filter to the PDAN, wherein upon receipt of the new packet filter the PDAN installs the new packet filter.

26. The packet data network method of claim 20, wherein when the packet data session is terminated, the PDAN uninstalls the packet filter.